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UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL ADJUSTMENT ADMINISTRATION

FOREIGN COTTON PRODUCTION AND U. S. COTTON POLICIES*

TO COTTON PRODUCERS IN THE SOUTHERN REGION

Because of our long-time trade policies and change in debtor-creditor relationship, the cotton producers of the United States can no longer rely definitely on an expanding world market for cotton; neither small crops at high prices nor large crops at low prices is likely to bring them adequate income.

Under these circumstances it is increasingly difficult to maintain farm income in the South at levels suited to a completely adequate standard of living. Millions of people depend directly or indirectly on cotton as a source of income. If cotton farming cannot support them properly, they must turn to some other way of getting along. They may be able to do this by shifting to other crops, or by going into industry—but in any event time will be required for readjustment.

Largely because of legal handicaps and particularly during such a period of change, cotton farmers need assistance in order to keep their incomes from falling to disastrous levels. One way of easing the pressure on farmers and helping them maintain their incomes nearer parity levels is through soil conservation payments. A continuing source of additional income through parity payments might be provided by processing taxes on cotton.

But whatever method is finally chosen, it is not likely that the United States cotton economy can make necessary readjustments without government help. Cotton farmers undoubtedly will look forward to future agricultural programs—flexible programs designed to fit their changing needs both individually and as a group.

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A great deal has been said in the past 3 years about the effect of the cotton policies of the United States on foreign markets for American cotton. Most of what has been said has turned on the very limited facts of the past 4 years. One of the commonest devices has been to contrast the restricted production of 1933–36 with the expanding production abroad and with the reduced exports and foreign consumption. And one of the obvious conclusions derived from these short-range facts is that by adopting an unrestricted and therefore comparatively large production, the low prices resulting would check foreign expansion and stimulate our exports.

The data in this pamphlet call for a reconsideration of such a conclusion. The world economic and political forces shaping the

*Adapted from an address, "Changing Trends in Cotton Production and Consumption," given by L. H. Dean at the annual convention of the American Cotton Shippers' Association, April 29, 1938, and an address, "Foreign Cotton Production and Its Increase," by P. K. Norris at a meeting of the Association of Southern Agricultural Workers, February 2, 1938.

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course of foreign cotton production and trade have been operating for too long a time to justify casually accepting that conclusion. At least, such a short-range conclusion ought to be carefully checked against long-range trends in the major cotton producing countries. The price of American cotton is, of course, an important factor in foreign production and our share in total foreign consumption, but not to the exclusion of other factors.

Six countries produce approximately 85 percent of the world's crop. The first country of this major group is the United States, which is the largest cotton-growing country of the world, and which in recent years has produced from two to four times as much as its greatest foreign competitor. Excluding the United States, the balance of the major group consists of five foreign countries headed by India, and followed in the order of importance as producers by China, Russia, Egypt, and Brazil.

LONG-TIME TRENDS IN UNITED STATES COTTON PRODUCTION

The United States has been producing cotton for over 150 years. In contrast with the cotton-producing areas that have sprung up over the world during the past 50 years, and particularly since the World War, the United States is an old producer. In spite of that prime position as world-producer, has the United States in the past been able to check foreign expansion by producing large crops at comparatively low prices?

In the early 1800's, expansion of cotton production in the South was very rapid, but as the country grew the rate of increase tended to diminish. From 1865 to 1875 the trend of cotton production rose about 100 percent; from 1875 to 1885 about 60 percent; from 1885 to 1895 about 40 percent; from 1895 to 1905 about 30 percent; and from 1905 to 1915 about 20 percent. It is interesting to observe that this 50-year long-time tendency from 1865 to 1915 or the 60-year trend from 1865 to 1926 projected to 1937 indicates a maximum crop of about 19,000,000 bales, which was actually produced.

LONG-TIME TRENDS IN FOREIGN COTTON PRODUCTION

The trend of total foreign production during this long period has been somewhat different from that of production in the United States though the foreign trend had also been definitely upward during the past 40 years. The rate of foreign expansion from 1870 to 1915 was practically uniform each decade, the rise each decade being about 44 percent. It has been kept at a high and fairly uniform rate by the fact that new cotton-producing territories have constantly been developed.

Forty years ago the foreign cotton crop was approximately 4,000,000 bales. Fifteen years ago the total foreign crop passed the 10,000,000 bale mark. An examination of the 5-year averages during the last 40 years shows that foreign production has increased from an average of 4,500,000 bales for the 5-year period ending in 1903, to an estimated average of 16,400,000 bales during the latest 5-year period.

The course of foreign production after 1915 shows a marked decline until 1920, and a marked recovery up to 1925. This fluctua-

tion was due to the World War, and is similar to the course of foreign production of other farm products such as wheat and livestock. By 1925, however, there was a general restoration of foreign farm production to approximately the volume called for by the pre-war trends.

When the 40-year pre-war trend in foreign cotton production is projected, that trend indicates a crop in 1937 of about 19,000,000 bales—the actual total of foreign production as reported by the United States Department of Agriculture. In other words, judging from merely the pre-war rates of expansion, foreign production could have been expected to expand so as to equal approximately the American crop by 1937—and it did.

The persistence of this long-range trend in foreign production is borne out by the fact that large crops in the United States have had very little effect in checking foreign acreage expansion. Since 1870 the South has had nineteen record crops—each larger than the one before it—and, in all but four of these instances, total foreign cotton acreage instead of being reduced actually increased after each of these record crops.

Apparently foreign production, especially in the newer countries, has responded more to other factors than volume and low-price competition from American cotton. It is significant in this connection to observe the South's recent experience with record crops. Following the record crop of 1926, most of which was sold to the world for less than cost of production, no reduction in total acreage took place. The reduction in some countries was offset by increases in others. Likewise, after the record crop of 1931, which hardly returned out-of-pocket costs, a reduction in total foreign acreage of only 2 percent took place. Most of this reduction occurred in the older countries of India and Egypt, partly because of the low price of American cotton and partly because of other reasons.

WHERE FOREIGN PRODUCTION HAS CLIMBED

The recent increase of foreign cotton as a whole is largely reflected in the increases within the five major foreign cotton-growing countries, namely, India, China, Russia, Egypt, and Brazil. The crop in Egypt and India has fluctuated widely during the last 5 years, but has not increased so rapidly as that in China, Russia, and Brazil. The average annual production in India and Egypt during the last 5 years has been about 550,000 and 350,000 bales, respectively, above the average annual production for the previous 5-year period, while during the same periods, increases in China, Russia, and Brazil were approximately 2,800,000 bales. Altogether, approximately, 3,700,000 bales of the 4,600,000 bales of increase is accounted for in these five major foreign cotton-growing countries.

If the 1937 acreage is compared with that of, say, 1925 or 1929, it is possible to determine where the really important long-time shifts are taking place. Since 1925, the total foreign cotton acreage expanded from 43,000,000 to 58,000,000 acres, an increase of about 15,000,000 acres or nearly 35 percent; but most of this long-time expansion is concentrated in China, Brazil, Russia, and Uganda. During the 12-year interval—1925 to the present—China expanded 4,000,000 acres, Brazil at least 5,000,000, Russia nearly 4,000,000, and

Uganda more than 1,000,000, a total for these four countries of 14,000,000 acres, or more than 90 percent of the entire foreign acreage expansion.

In the smaller cotton producing countries, there have been some increases over this 12-year period, with a net increase of about 1,000,000 acres. But China, Russia, Brazil, and Uganda are the ones with which the United States is particularly concerned, though so far Soviet Russian cotton and a good part of Chinese cotton have not been competitive with American cotton.

HOW FOREIGN PRODUCTION HAS BEEN ENCOURAGED

It is worth while to examine some of the conditions under which cotton is grown in foreign countries. First it will be noted that the recent foreign increase did not happen by accident—it was definitely encouraged. Much of the increase in the minor countries is the direct result of a well-planned program by several major European countries. These countries have for a number of years been engaged in the development of cotton within their colonies.

The outstanding example of such a program is the British effort to stimulate cotton growing in their colonial possessions. At the beginning of this century the cotton-spinning interests of Great Britain were alarmed regarding the future supplies of American cotton. Great Britain was largely dependent upon American cotton, but with the advance of the boll weevil across the American Cotton Belt and the rapid increase in consumption of domestic cotton by American mills it appeared to the English spinners that America would shortly consume the entire crop. Cotton would then be scarce and expensive.

For this reason Great Britain felt it was necessary to stimulate cotton growing within the Empire. An organization known as the British Cotton Growing Association was formed about 1902, and a little later the Empire Cotton Growing Corporation was formed.

In African areas where natives were growing small amounts of cotton or where cotton previously had been grown, the associations built gins, railroads, highways, established markets, opened up trading posts, and in some cases financed a program for the general improvement of the health and living conditions of the natives. These associations also cooperated with the local governments of the various colonial possessions in the establishment of experiment stations, the development of cotton varieties suited to climatic and soil conditions, and the study of disease and insect control. By its nature, this form of encouragement was slow and the early results were not significant; but today, after more than 35 years of work, there is a notable increase in production in some of these African possessions.

Other countries also organized cotton promotion associations. Among them were the French and the Belgians. The Portugese are also interested in the development of cotton growing in their colonies, and have in the past employed outside experts to help develop the industry. Some countries have employed Americans from time to time to help solve the problems arising from the production of cotton in new areas.

THE EFFECT OF UNITED STATES COTTON PRICES ON FOREIGN PRODUCTION

During the past 18 years the price of American cotton has had a more or less violent history and has followed a downward trend. Yet the response of foreign cotton acreage to these price swings has been different in almost every country, with some countries showing no apparent response to the drop in price from around 30 cents in 1923 to less than 5 cents in 1932. In each country there are other factors besides the price of American cotton that help determine the acreage planted to cotton.

It is important in this connection to look at the acreage records in countries where the price influence of American cotton has been outweighed by other factors. First, it will be noted that the total acreage in cotton in the four countries—China, Russia, Brazil, and Uganda—increased almost continuously from 1921 to 1927; this expansion took

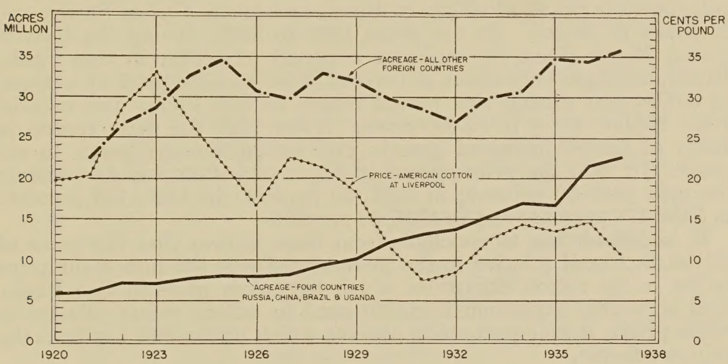

CHART I.—Cotton acreage in foreign countries and world price of American cotton, 1920–37

place in spite of the fact that between 1923 and 1926 the world price of American cotton was reduced by more than 50 percent. (See Chart I.) On the other hand, the total acreage in all other foreign countries reached a peak in 1925 and was reduced in both 1926 and 1927, the reduction occurring chiefly in India and Egypt. After 1927 the total acreage in the four countries continued to expand but at a more rapid rate, with practically no check through 1937; and this expansion took place in spite of the decline in the world price of American cotton of 66 percent between 1928 and 1932.

The total for all other countries increased in 1928 and then declined in four successive years until 1932; since that time there has been a restoration to the acreage total of 1925. These facts suggest very clearly that if, for example, the price of American cotton had been kept at 6 cents in 1933, it would very likely not have prevented the rapid expansion in countries where expansion had been planned and where governments through monetary and trade policies have cushioned their domestic prices against low prices of American cotton.

Take, for example, the course of cotton production in a single country—Brazil. Post-war history of cotton expansion in Brazil throws some light on the question as to whether or not low prices of American cotton would with certainty check or reduce foreign competition. Since the War there have been two periods of cotton acreage expansion in Brazil. Between 1920 and 1925 acreage expanded from about 1,000,000 to 1,500,000. After a small contraction in 1926 and 1927, expansion was resumed and attained 6,400,000 acres in 1936, with only one noticeable curtailment in 1932. This recent growth, it has been often argued, was produced by the devices resorted to by the United States to raise cotton prices above the 1932 low level and by the assumption on the part of Brazilian and other interests operating in that country that the United States is to continue a restriction policy.

In an attempt to determine the worth of this argument, it is well to examine some of the price factors involved in Brazilian cotton expansion—the prices of cotton in Brazil and in the United States, and of coffee in Brazil. In the years 1925 to 1929, during the harvest season March–June, the price of a pound of cotton in Sao Paulo, Brazil, averaged only about 10 percent more than the price of a pound of coffee, and during this period cotton in Sao Paulo was reduced from 236,000 acres to 52,000 acres. After 1929 the price spread in favor of cotton increased greatly and cotton acreage began to expand. In 1930 the price spread in favor of cotton was 47 percent; the next year 50 percent; in 1932, 90 percent; in 1933, 143 percent; in 1935, 176 percent; and in 1937, 80 percent.

It is difficult not to conclude from these figures that the price of cotton in Brazil relative to the price of coffee is the important price factor in the cotton expansion which has taken place in Sao Paulo. And since this expansion is conditioned by cotton prices relative to coffee prices, it is important to observe which of the two has been the primary factor.

What effect have American cotton prices had on Brazilian cotton prices? If lowering the price of American cotton is to have a retarding effect on Brazilian acreage, it can do so only through a comparable lowering of the price of cotton in Brazil as well as in the consuming markets. In 1929 when cotton acreage was low, a pound of Brazilian cotton and a pound of Brazilian coffee had about the same value in American money—about 19 cents a pound. In 1932 cotton was down to 9 cents and coffee to 4.8 cents, so that cotton had a 90 percent advantage; and acreage was extensively increased. Thus it is significant that the expansion was begun 2 years in advance of the Agricultural Adjustment Administration programs—in a situation where both cotton and coffee prices were low, but coffee prices were so much lower that cotton production was given a substantial advantage. Vigorous expansion began after 1929 when the price of cotton in Brazil, as distinguished from the price of cotton on a gold basis, showed a wide margin in excess of the Brazilian price of coffee.

It would not seem to be safe to conclude from these facts that lowering the price of cotton in the United States would necessarily cause material cotton acreage curtailment in Brazil. In the first place, a decline in the price of cotton might be accompanied by a similar decline in the price of coffee, and this would not alter the

relative advantage for cotton production. Secondly, a decline in the price of American cotton might be offset by exchange manipulation in Brazil so as to protect the price of cotton in Brazil. This is, in fact, the situation that has prevailed ever since 1929. During the 1920's the price of cotton in Brazil and in consuming markets fluctuated up and down with the price of cotton in the United States; but since 1930 cotton prices in Brazil have not followed cotton prices in the United States. (See Chart II.)

Monetary devaluation and exchange devices have kept the price of cotton to producers in Brazil at or above the predepression level, while prices in the United States have ranged between one-third to two-thirds of the predepression price. Thus in the 1936 season the price of cotton in Brazil was 8 percent higher than in 1928, while the price of cotton in New Orleans was 37 percent below that of 1929

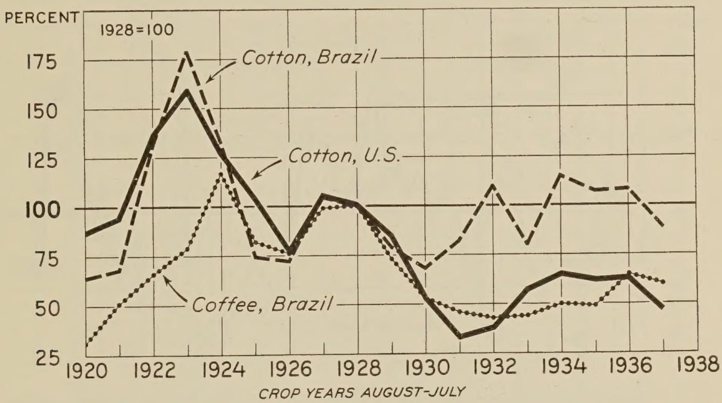

CHART II.—Prices of coffee and cotton in Brazil and cotton in the United States, 1920–37

and the price of coffee in Brazil 35 percent below. As long as foreign governments in behalf of their producers use monetary devices to offset the price policies of competing countries, there is no guarantee that low-price competition will check foreign production.

As for Soviet Russia, if present trends continue, cotton production may be expected to reach 4,000,000 to 5,000,000 bales in another 5 years. This may come about with as complete independence of American cotton prices as seems to have been the case in the past. Internal industrialization policies in Russia, and not the course of American prices, have been responsible for the postwar rapid expansion.

In the case of Uganda and China, the other two countries where cotton acreage is being expanded, low price competition is also not certain to serve as a check. In Uganda expansion is the result of long-time colonial development policies, and in China the growth of cotton production is a natural accompaniment of the rise of the textile industry in Japan and China. In these trends the price of American cotton, while an important factor, appears to be dominated by other more important considerations.

COTTON CONSUMPTION TRENDS IN THE UNITED STATES AND ABROAD

A common argument holds that the efforts of the past few years to keep the price of American cotton above the low levels of 1932 have had the effect of cutting down consumption both in the home markets and abroad. This argument is sometimes applied even to the domestic market, in spite of the fact that domestic consumption in 1936–37 reached record proportions.

Theoretically, it is true that consumption is less at higher prices than at lower prices, and in practice this is true for certain types of cotton consumption. In general, however, it is the course of general industrial activity, rather than the price of cotton, which is the predominant factor in the amount of cotton consumed. (See Chart III.)

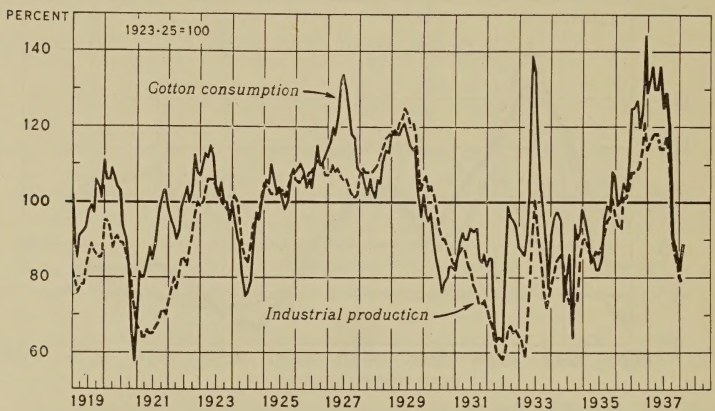

CHART III.—Cotton consumption and industrial production in the United States, 1919–37

In 1922, 1926, and 1932, low prices and the prospect of rising prices stimulated relatively higher levels of cotton consumption. In 1934, relatively high prices and the prospect of falling prices had the opposite effect. The record consumption of the 1936–37 season was in part due to the general level of improved business and in part to speculation in the textile industry. That season's abnormally high level of cotton consumption was not associated with any marked change in the level of cotton prices.

By turning to long-time trends, it is possible to get some idea as to what domestic cotton consumption is likely to be over the next few years. After the setback given to domestic consumption by the Civil War, per capita consumption increased fairly steadily from about 11 pounds in the 5-year period ending in 1870–71, to 30.7 pounds in the 5-year period ending in 1915–16. Since then the upward trend has not been maintained. In the subsequent 5-year periods, per capita consumption amounted to 31.6 pounds, 29.5 pounds, and 29.7 pounds. During the depression years ending in

1935, only 25 pounds were consumed on the average; and during the two seasons 1936–37 and 1937–38, the average was again nearly 30 pounds. About 10 percent of these figures is made up on linters. Thus it appears that during the past 25 years the average per capita consumption has been about 27 pounds of lint cotton and about 3 pounds of linters. Particularly noteworthy is the fact that per capita consumption of cotton failed to increase with the decline in the level of cotton prices in the 5-year periods ending in 1920, 1925, and 1930.

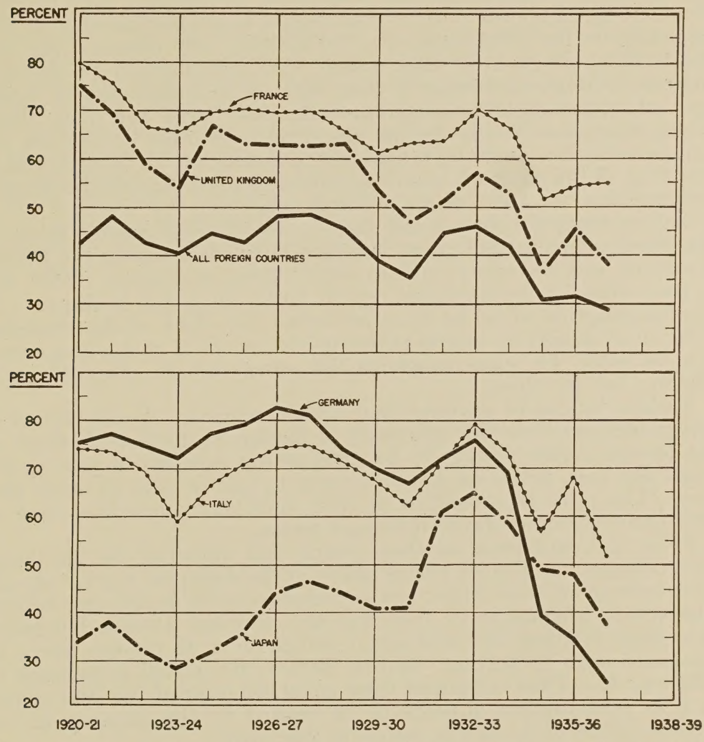

CHART IV.—Consumption of all kinds of American cotton in foreign countries, 1920–21 through 1936–37

Apparently, to get a more abundant consumption of cotton in the United States as an offset to the decline in foreign demand, it will be necessary to discover new uses for sizeable quantities of cotton, or to have a substantial increase in the purchasing power of the lower income groups. Over the next 5 years, the population of the United States is not likely to increase by more than 4 percent, and if the average per capita consumption remains around 30 pounds, domestic consumption of cotton without new uses and new purchasing power is likely to hover around 7,000,000 bales.

The international factors which have been at work making for foreign cotton expansion, and counteracting the influence of the price of American cotton, are naturally reflected in a long-time decline in the South's share in foreign cotton consumption. Before the war (in the seasons of 1911 and 1912) American cotton supplied about 60 percent of total foreign consumption of all kinds. (See Chart IV.) Ten years later, in 1921, the proportion was only 48 percent; and again 10 years later, in 1931, the proportion was down to 44 percent. During the 1934, 1935, and 1936 seasons, it was down to about 30 percent, and this season the percentage may be only about 27 to 28 percent. It is clear that a large part of this decline occurred in the 1934 season. Undoubtedly the 12-cent loan and the holding program of that season were instrumental in giving a price advantage to foreign cotton, and to an undetermined extent the subsequent holding programs may also have had that effect. There were, however, long-time tendencies and other concurrent developments that must be taken into account for an honest understanding of the effect of American prices (since 1932) on the South's reduced share of the foreign cotton market.

Before 1932, the downward drift in the United States' share of the foreign demand for cotton was especially noticeable in the United Kingdom and Germany, and to some extent in France. This was in part offset by the increased use of American cotton in Japan. In the consumption of all of these countries, the effect of the changing relation of American cotton prices to the prices of competing cotton can be seen. In some countries the effect can be observed more clearly than in others.

If these influences are examined closely, however, country by country, it becomes clear that the sharp reduction in the South's share of the foreign cotton market in the 1934 season was due in part to the relatively high prices of American cotton, and in part to other factors. The price relationships in 1934 were very much like those of 1922 and 1930 which favored foreign cotton.

From the experience of these years, and allowing for the long-time changes, the United States' share in the Japanese market should have been about 48 or 49 percent as compared with 59 the year before. The actual percentage in 1934 was 49. For the United Kingdom, past price relationships and trend called for a 42 percent share as compared with 63 percent the year before; the actual percentage in 1934 was 36. Thus in both of these countries most of the 1934 reduction in consumption appears to be related to the increase in the relative prices of American cotton in that year.

In Germany, however, the United States should have had approximately a 63 percent share as compared with 69 percent the year before, and actually it had only about 39 percent. Here only one-fifth of the drop in consumption appears to be related to the price situation and the other four-fifths to other factors, such as the barter arrangements entered into between Germany and Brazil, the shortage of foreign exchange, and the sharp expansion in the use of synthetic fibers.

Only part of the reduction in imports of American cotton by Germany after 1933 has been made up by imports of cotton from Brazil and other countries. The deficit to some extent has been made up by the rapidly increasing consumption of rayon.

It is factors such as these that have kept the United States' share of the foreign markets relatively low since 1934. Consequently, it is quite plain that a mere lowering of the world price of American cotton is no sure way of regaining a more nearly normal share of the foreign cotton market.

More than a low price policy in this country is required to remove certain practices which now serve to hamper United States cotton exports. High American tariffs, such as those put into effect in 1930, have acted as a boomerang. Foreign countries immediately retaliated by heightening their own tariff walls, and by putting into effect quotas, embargoes, and like devices which helped stifle American exports. To dissuade governments in competing countries like Brazil from using monetary devices to protect their producers from low price policies in this country will require more than larger United States cotton crops. And insofar as the United States has lost part of the foreign cotton market because of scanty attention to quality and up-to-date merchandising practices, Americans also need something more than a large-volume, low-price point of view.

All in all, cotton problems clearly must be seen in terms of dynamic shifts in world trade. These shifts have been going on for many years, and the problems such changes bring cannot be solved over night.

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